

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

BONNIE RAPCHAK, *Executrix of the Estate
of John E. Borzik, Deceased,*

Plaintiff,

vs.

**HALDEX BRAKE PRODUCTS
CORPORATION,**

Defendant.

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MEMORANDUM OPINION AND ORDER OF COURT

Pending before the Court are a MOTION FOR SUMMARY JUDGMENT (ECF No. 137) and a MOTION IN LIMINE TO EXCLUDE THE EXPECTED OPINION TESTIMONY OF PLAINTIFF’S ENGINEERING EXPERT ERVIN VANDENBERG (ECF No. 169) filed by Defendant Haldex Brake Products Corporation.¹ The issues have been fully briefed by Haldex and Plaintiff Bonnie Rapchak, Executrix of the Estate of John E. Borzik, Deceased in their memoranda (ECF Nos. 138, 152, 164, 170, 182, 183), and the factual record has been thoroughly developed via their respective Concise Statements of Material Facts (“CSMF”), Responsive/Counter Statements of Facts (“RSOF”/“Counter-CSMF”), appendices, exhibits, and supplements (ECF Nos. 139, 140, 141, 147, 151, 152, 156, 165, 170, 178, 179, 181). Accordingly, the motions are ripe for disposition.

1. Also pending is a MOTION FOR SUMMARY JUDGMENT (ECF No. 132) filed by Freightliner Custom Chassis Corporation (“FCCC”). Plaintiff has since filed a Stipulation of Dismissal with regard to all claims asserted against FCCC. Accordingly, the Court will deny as moot FCCC’s motion for summary judgment.

I. Background

The following background is taken from the Court's independent review of the motion(s), the filings in support and opposition thereto, and the record as a whole.

A. Factual Background

This products liability action arose out of the tragic death of John E. Borzik who died from asphyxiation on September 11, 2011 when his Gulfstream TourMaster motorhome, equipped with an air suspension system, descended about 2½ - 3" onto his chest while he was lying underneath it performing maintenance work. Plaintiff Bonnie Marie Rapchak is Mr. Borzik's sister and executrix of his estate. Defendant Haldex Brake Products Corporation ("Haldex") designed, manufactured, and sold the height control valve(s) / dump valve(s) used in the air suspension system of the motorhome.²

1. The Motorhome

On November 21, 2007, Mr. Borzik purchased a 2008 Gulfstream TourMaster motorhome to use for recreational purposes. The motorhome was advertised as new by a dealer in Ocala, Florida, with 1,092 miles logged since its build. Afterward, Mr. Borzik traveled 36,837 miles and used the motorhome as intended, during which it experienced normal, expected, and foreseeable wear. Mr. Borzik later purchased a trailer-hitch-mounted tow vehicle cable of hauling an automobile along with the motorhome.

Freightliner Custom Chassis Corporation ("FCCC") designed, manufactured, assembled, installed, and sold the chassis for the motorhome. As part of the chassis, the motorhome had an air suspension system, which incorporated a FCCC-designed air flow system that connected the

2. Haldex uses the terms "height control valve(s)" and "dump valve(s)" interchangeably in its CSMF. Def.'s CSMF at 2. At the same time, Haldex represents that "[e]ach height control valve operated in conjunction with a dump valve whereby the height control valve is mechanically activated to cause exhaustion of air or the supply of air to the air springs by the height control valve when pilot pressure is supplied to the dump valve." *Id.*

air intake, air bags, brakes, height control valves, and dump valves. Haldex did not participate in designing the motorhome chassis and was never provided with the design drawings.

2. The Air Suspension System³

The Haldex height control valve is an off-the-shelf component part that FCCC incorporated into its design of the air suspension system. Air suspension is used in place of conventional steel springs in heavy vehicle applications such as buses, trucks, and motorhomes to provide a smooth, constant ride quality.

The suspension system utilizes pressurized air drawn from the vehicle's air system to inflate and deflate air springs (also known as air bags or air bellows) to the desired extent, which raises or lowers the vehicle's chassis to the desired "ride height" above the axles. Motorhomes, such as the Gulf Stream owned by Mr. Borzik, typically have two axles: a front steer axle and a rear drive axle.

Moreover, the purpose of a height control valve is to dynamically maintain ride height of the vehicle by automatically allowing pressurized air to flow into or out of the suspension air bags in response to changes in the motorhome's ride height. When the vehicle load is increased, the control lever attached to the chassis and to the height control valve moves in one direction to allow compressed air from the air reservoir to flow through the supply port and into the air bags from the delivery port. The increased air pressure in the air bag causes it to inflate, which raises the chassis or cab height. After the operating valve reaches the neutral position (*i.e.*, the desired height) the valve closes and the air bag inflation stops. When the vehicle load is decreased, however, the control lever moves in the opposite direction, allowing air to exhaust from the air

3. Aside from its CSMF, Haldex also includes a Statement of Facts in its motion in limine filings that delves into greater detail regarding the air suspension system and height control valves. Plaintiff does not object to the general descriptions set forth by Haldex, although she does highlight certain statements that, in her view, are incorrect or inaccurate. Of course, the Court must view the facts and make all reasonable inferences in the light most favorable to Plaintiff, the nonmoving party.

bag through the exhaust port of the height control valve, thereby causing the air bag to deflate and the chassis or cab to lower.

Mr. Borzik's motorhome had three identical Haldex controlled response (model "CR") height control valves incorporated into the design of its chassis. The front height control valve, which was located on the driver's side of the suspension system above the front axle, controlled air flow into and out of both air springs above the front axle. A second valve, located on the driver's side near the rear axle, controlled the air flow into and out of the air spring on the left side of the rear axle. A third valve, located on the passenger side near the rear axle, controlled the air flow into and out of the air spring on the left side of the rear axle.

The design of the air suspension system installed on Mr. Borzik's Tour Master motorhome has remained the same since the late 1990's. In this design, the front and rear suspensions are not isolated from each other. FCCC has not conducted any testing to determine what would happen if a front height control valve failed by virtue of the exhaust port sticking open and exhausting air from the piping system and the front air spring, or how the rear suspension system would be affected if the intake port of a height control valve failed. Nor did FCCC engineer a fail-safe ride height backup device for the chassis because, in its view, the height control valve piping system is not relevant to vehicle safety. In other words, a failure in or malfunction of the air suspension system would not affect a driver's ability to control the motorhome. FCCC also does not install air filters on the height control valves in the chassis' air system because the vehicle's "air dryer" – a device connected on the discharge side (downstream) of the air compressor driven by the engine – is (allegedly) highly efficient at removing moisture and the typical contaminants in the air system that are damaging to brake system valves. The air dryer is thus the only filter in the air piping system.

FCCC continues to use the Haldex height control valve. According to FCCC, the quality of the design and manufacture of the Haldex height control valve was and continues to be satisfactory. It also is not aware of any inherent defects in the product. FCCC anticipates that the Haldex height control valves will generally last the lifetime of the product, but it recognizes that they do sometimes need to be replaced.

FCCC has compiled a list of warranty returns related to the same height control valve model used in Mr. Borzik's motorhome. Air leakage is among the reasons listed for valve failure – some of which were from exhaust ports with the Schrader valves not closing. Haldex also received many reports that this height control valve model has leaked air. In fact, its troubleshooting list for this model refers to one reason for valve leaks as “[c]ontamination in valve causing components to stick.” Pl.’s App’x Ex. 15. And Haldex admits that contamination in this height control valve model could cause a continual exhaustion of air.

The litigants disagree on whether Haldex, in the design of its height control valve, should have included a protective screen, for example, to avoid contamination. Although Haldex admits that installing a screen on the height control valve is possible, it calls this measure “not technically feasible” because such filters would have to be serviced, cleaned, or replaced too often. From Plaintiff’s perspective, a protective screen is “economically of low cost, necessary, and effective” as well as “technologically feasible” because the valves are readily accessible inside the wheel wells behind the tires. To be sure, Haldex sells pressure protection valves with replaceable filters for customers who request them for construction and off-highway application as well as screen filters for valves that are internally identical to the height control valve.

3. The Incident⁴

On September 11, 2011, Mr. Borzik parked his motorhome in the driveway of the home that he shared with his mother, Wanda Borzik, in order to perform maintenance work on the vehicle. After allowing the engine to run, Mr. Borzik shut it off to find the source of an antifreeze leak. To do so, Mr. Borzik positioned himself near the right side of the rear axle – just behind the passenger-side rear wheels – lying supine on a creeper underneath the motorhome.

Around noon that day, Ms. Borzik left the home with a friend to attend a car show. As they departed, Ms. Borzik and her friend spoke with Mr. Borzik, who was beneath the motorhome performing maintenance and/or cleaning its undercarriage. At some point thereafter, the frame of the motorcoach descended onto Mr. Borzik's head and upper torso, trapped him underneath, and compressed his chest, causing him to die from asphyxiation.⁵

Later that afternoon, Ms. Borzik returned home from the car show, observed Mr. Borzik's legs extended out from beneath the motorcoach, and asked him "are you still there?" There was no response. Unaware of what had occurred, Ms. Borzik then entered her home and walked onto the back porch, where she phoned her daughter, Bonnie Rapchak.

Ms. Borzik later received a call from Sherri Whipkey, Mr. Borzik's ex-wife, who was attempting to return his telephone call from earlier that day. Ms. Borzik took the phone outside where she found that the motorhome had descended onto Mr. Borzik's forehead and chest, trapping him underneath. At this point, Ms. Borzik presumed that her son was dead. Ms. Borzik

4. Haldex set forth many of the following facts in an earlier CSMF, which it filed alongside its April 24, 2015 motion for partial summary judgment. *See* Def.'s CSMF, ECF No. 96.

5. According to Plaintiff, telephone calls from (and voice messages left by) Mr. Borzik to the home, while trapped under the motorhome, indicate that Ms. Borzik may have departed shortly after 11:00 AM and that Mr. Borzik died while she was away.

nevertheless attempted to extract him from beneath the motorhome, but she was unable to do so. Afterward, Ms. Borzik returned back inside and called 9-1-1.

4. The Inspections of the Motorhome

Shortly after Mr. Borzik's body was removed from the scene, local authorities summoned a vehicle specialist, Trooper Duane Spangler of the Pennsylvania State Police, to assist in the investigation. When he arrived later that day, Trooper Spangler observed the motorhome attached to the trailer, with the rear left wheel of the trailer elevated on a steel ramp, which raised its front tire a few inches above the ground.⁶ Accompanied by Timothy Phillips, a friend of the Borzik family, Trooper Spangler first measured the ground clearance where Mr. Borzik was found at nine-and-one-half inches. Trooper Spangler then turned on the motorhome to pressurize/charge the air suspension system, during which the ground clearance rose to approximately twelve inches. After the engine ran for five to ten minutes, Trooper Spangler turned it off and inspected the exterior of the motorhome. When he arrived near the front tire, he heard an air bleed and felt air exhausting from or near the front height control valve in the left wheel well. Mr. Phillips also heard a faint hissing noise and traced it to the exhaust tube of the front height control valve. After a few minutes passed, Trooper Spangler once again took measurements, finding that the motorhome had descended back to nine-and-one-half inches of ground clearance. Trooper Spangler later prepared a report in which he stated that his "investigation revealed that the [motorhome] had a faulty pressure release valve that serviced [the] air suspension system." Pl.'s App'x Ex. 4.

6. According to Haldex, this attitude put pressure on the rear of the motorhome via the trailer hitch and caused the rear valves to open in an attempt to raise the vehicle. With the engine and compressor off, as Haldex so contends, instead of compressed air flowing into the rear air bags, the compressed air in the air bags purportedly flowed out of them.

On November 21, 2011, Gabriel Alexander, PE, examined the air suspension system after having read the report of Trooper Spangler. As with Trooper Spangler, Mr. Alexander first pressurized the air suspension system with the motorhome's engine and then turned it off to observe. Afterward, Mr. Alexander found air leaking from the exhaust tube of the front height control valve, without any dump switch activation. As he later described it: "[a]s the air exhausted, the control arm of the height control valve was off center (not level) and in a position whereby the valve was calling for air supply, yet exhausting the air." Pls' App'x Ex. 6 at 2.

On August 14, 2012, the suspension system was again inspected, with the parties' representatives present. As with the other tests, the parties used the engine to pressurize the suspension system and then turned it off to observe. And what followed was no different: the rear of the motorhome descended about three inches over an eleven minute period while the height control valve exhausted air without any activation.⁷ Afterward, a designated mechanic removed and replaced the front height control valve, and the parties repeated the same operational scenario. With the new product, the Haldex height control valve did not exhaust air. Nor did the chassis of the motorhome descend after the engine was turned off with the air suspension system pressurized.

Along with this testing, the parties inspected the original height control valve that day. At least two consultants hired by Plaintiff observed a contaminant at the port openings, which Mr. Alexander has described as a "paste-like solid." Pls.' App'x Ex. 6 at 5. After the removal and visual inspection of the original height control valve, Robert A. Nocivelli, Plaintiff's other consultant, personally retained control of the product, stored it at room temperature, and avoided any exposure of it to any other elements, dust, or debris.

7. To be sure, Haldex did not design or intend its height control valve to exhaust air when the engine was turned off and the vehicle parked.

5. The Testing of the Height Control Valve

At the request of Haldex, Nocivelli transported the subject height control valve to its facility in Kansas City, Missouri for testing on August 9, 2013. Plaintiff's engineering consultant, Ervin VanDenberg, accompanied Nocivelli to observe this testing, which was supposed to mimic a factory procedure that Haldex uses during engineering development or sales calls. VanDenberg and Nocivelli both describe what instead transpired:

At the Haldex facility, testing was conducted on the valve by Haldex employees with a device that forced air into the valve at high pressure. Before being able to set up a cloth or method to collect any material that might be blown out of the valve in the testing process, the testing was begun. At that time, material that had been inside the valve was forced out and blown a number of feet away from the valve and the material was not able to be recovered and saved for analysis.

Pl.'s App'x Ex. 7 at 4, Ex. 8 at 3. Haldex admits that "a particle or fragment of something was ejected." Pls.' App'x Ex. 9 at 210. Afterward, the exhaust port closed and the valve passed the testing procedure. It remains unclear why safeguards were not in place to capture any particles expelled from the height control valve.⁸

8. Moreover, Plaintiff contends that "[d]uring the inspecting and testing, defendants' representatives subjected the valve to various degrees of air pressure blowing out various materials (contaminants) that were inside the valve and such materials were not captured." Pl.'s Counter-CSMF at 4. Haldex denies this fact "to the extent that this implies that [it] performed the testing without advance circulation of the protocol and consultation with Plaintiff's experts." Def.'s ROSF at 4. Haldex then states:

The protocol for the testing was circulated well in advance, and all experts from all parties were present and had the opportunity to observe the testing apparatus before testing commenced. The valve was in the possession of Plaintiff's experts both before and after the testing. No request or suggestion was made by Plaintiff's experts before testing commenced that a mechanism should have been put in place to capture contaminants. As testing progressed, some of the contaminants were collected and maintained.

Id. at 4-5. In support, Haldex cites to the transcript of VanDenberg's deposition in which he testified that he did *not* participate in either the development or review of the protocol that was to be followed when the valve was examined and tested. *See* Def.'s RSOF App'x Ex. A at 92. In fact, VanDenberg testified that the personnel testing the height control valve announced what was being done simultaneous with "blast[ing] it with 120 psi on the first sequence." *Id.*; *see also* Jan. 7, 2016 Decl. of VanDenberg at 4 ("Then the air pressure was increased to 120 psi, likely a far greater pressure than was ever exhausted in the real experience of the valve when exhausting air while it was on the motor home . . ."). VanDenberg does, however, accept some responsibility for what occurred. *See id.* at 96 ("So the fact that we didn't do something preemptively before blasting with 120 psi to make sure this stuff wasn't going to go everywhere, I'm to blame for that as well. I did not anticipate that that was going to occur that way, the test

Nevertheless, then-Plaintiffs thereafter sought the Court's permission to disassemble the height control valve to view the internal components and test any foreign substance that they may find inside. FCCC did not object to Plaintiffs' proposed testing at a future point, but it first sought to reinstall the height control valve on the motorhome for additional testing so that it could determine whether the valve functioned differently if the motorhome rested on level ground as opposed to a slightly elevated position as it was on the day of the incident. Plaintiffs opposed reinstallation. Following a hearing, the Court granted Plaintiffs' motion to disassemble and denied the relief sought by FCCC. *See Rapchak v. Freightliner Custom Chassis Corp.*, No. 2:13-CV-1307, 2014 WL 4169393 (W.D. Pa. Aug. 20, 2014). Other than attending the hearing, Haldex took no part in this dispute.

On December 2, 2014, Nocivelli presented the subject height control valve for disassembly and testing at the R. J. Lee Group in Monroeville, Pennsylvania. With the parties' representatives present, Nocivelli and VanDenberg opened the valve and removed the contents, which were then forensically marked and photographed.⁹ During the teardown, the interior components and surfaces were found to exhibit various residues and particles. Representative samples were thereafter collected for analysis by the R.J. Lee Group. It found that the various particle or residue items were consistent with materials typically used to construct the valve, while others were environmental in origin.

sequence, and it did.”). Be that as it may, some material was ultimately collected later in the test sequence after “somebody got cloths and gauze and various things to try and contain the stuff coming out of the ports,” but in VanDenberg’s view, “it was far too late.” *Id.* at 95.

9. Randy Petresh, the corporate designee for Haldex, attended this inspection. At his deposition, he testified that there was no indication that the subject valve had ever been opened, revised or rebuilt since it left Haldex.

6. The VanDenberg Reports

VanDenberg has since been retained by Plaintiff to provide an expert opinion regarding the engineering aspects of the motorhome's suspension system and its related valves. His education include over 240 term-hours of academic course work in mechanical and electrical engineering studies at Muskegon Community College, Tri-State College, General Motors Institute, Western Michigan University, Michigan State University, and the Massachusetts Institute of Technology. VanDenberg has worked in engineering and management positions for Dresser Corporation, the Oldsmobile Division of General Motors, the Neway Division of Lear Siegler, Ford Heavy Truck, Westran Corporation, Turner Suspensions, Hendrickson Suspensions, Rockwell, Meritor, and Suspensions, Inc., and he remains active in several of his own companies. While working as a project engineer at the Neway Division of Lear Siegler in the early 1970's, VanDenberg was among the four-person team that participated in the original design of what is now known as the Haldex CR height control valve.¹⁰ Over the course of his career, he has also obtained many patents that have been commercially successful in the vehicle suspension field and other product areas.

As part of this litigation, VanDenberg authored an expert report on June 12, 2015, which includes a section entitled "HOW AND WHY THE VEHICLE FRAME DESCENDED." There, VanDenberg opines that, because the front and rear suspension systems were on the same circuit and not isolated from each other, a leak of air from the front height control valve could exhaust all the air in the system, including the rear suspension air springs. At the same time, the rear springs would only deflate or lower if "something causes the rear [height control valve] to call

10. At his November 10, 2015 deposition, VanDenberg testified that the height control valve has undergone several engineering changes, but that the concept remains the same. *See* Dep. of VanDenberg at 44-48. VanDenberg also testified that his views on the need for a screen filter in the design of the valve have since changed as well. *See id.* at 49-55.

for air to be added to the air springs.” June 12, 2015 VanDenberg Report at 8. In other words, he opines that “[t]his exhaustion of air from the rear suspension and the unexpected lowering of the chassis only occurred in this case when the common supply line was exhausted by an uncontrolled leak of air in the front [height control valve] and at least one of the rear [height control valves] was caused to call for additional air in the air springs.” *Id.* (emphasis in original).

VanDenberg’s report also includes a section titled “ANALYSIS OF PRODUCT SAFETY AND CAUSES FOR THE INCIDENT,” in which he offers the following opinion:

The front HCV [*i.e.*, the height control valve] did not function as intended and failed because it exhausted air when there was no indication the ride height was higher than calibrated, and when the control arm of the HCV was raised which should have called for air to be supplied from the air supply line to the suspension air springs. The front HCV continued to exhaust even when the front suspension became completely collapsed and the air in the front air springs was completely exhausted. This allowed the air supply lines for both suspension systems to also be exhausted of pressurized air. This malfunction occurred because the Schrader valve or seal at the exhaust port of the front HCV did not close completely as it was designed to do when the arm of the HCV is raised to a position that would normally call for air to be supplied to the front suspension, rather than exhausted.

Id. at 9-10. Later in his report, VanDenberg specifies “several reasons for why the exhaust port was open,” which he often characterizes as a “malfunction.” *Id.* at 10. As he states:

1. The central shaft of the HCV may have stuck with the balance lever pressed against the exhaust port Schrader valve holding it open A possible but very unlikely combination of events.
2. The pressure differential acting on the Schrader valve in the exhaust port tends to open the valve could cause the valve to leak as long as sufficient pressure differential existed across the valve This theory does not explain why the valve continued to leak until the suspension was completely collapsed and almost no pressure differential existed across the exhaust port Schrader valve.
3. Contamination from even very small particles can cause the tiny valve seat of the Schrader valve to be held open and leak Contamination from whatever source is most likely the cause of the leaking through the exhaust of the HCV on the Borzik coach.

Id. at 10-11. From this last scenario, VanDenberg opines that “it is highly probable and, to a reasonable degree of certainty, the Schrader valve on the exhaust port of the subject HCV at the time of the incident did not close due to a substance lodged between the valve seat parts of the Schrader valve mechanism.” *Id.* at 11. And in his view, Haldex should have incorporated a simple (screen) filter to reduce or eliminate contaminants from the valve – which he later calls a “necessary safety element.” VanDenberg thus concludes that “[a]s designed, made, assembled and sold, the subject front HCV valve was defective and unnecessarily and unreasonably dangerous for an intended or foreseeable use.” *Id.* at 12.

VanDenberg also criticizes FCCC and its air system design in his June 12, 2015 report. For instance, he contends that FCCC should have only installed height control valves that contained air filters in its suspension assemblies and that it should have isolated each suspension system from the other – a point on which Haldex fixates its attention throughout its filings. As he states:

[h]ad [FCCC] isolated the front suspension from the rear, Mr. Borzik would not have been trapped and compressed under the frame and bodywork at the rear of the motor home and his death prevented. Isolating one suspension system air supply line from the other by the simple methods described above and using valves with air filters were necessary to make the chassis safe and eliminate the chance of serious injury or death.

Id. at 13. Thus, as VanDenberg again concludes, “the Freightliner chassis was defective and unnecessarily and unreasonably dangerous for its intended and foreseeable uses” as designed, assembled, and sold. *Id.*

With the Court’s permission, VanDenberg supplemented his expert report on January 7, 2016 to develop three points. First, VanDenberg opines that the force applied by the trailer hitch could not, by itself, cause the rear suspension to lower. Second, VanDenberg again discusses several potential causes for what occurred, but explains how, in his view, hard particulate

contaminates prevented the Schrader valve from sealing the exhaust port. *See, e.g.*, Jan. 7, 2016 VanDenberg Report at 3 (“The fact that the valve worked properly after the particulates were blown free is further evidence that the internal components including the central shaft and the Schrader valves were in good working order and had not ‘worn out.’”). VanDenberg further explains that he conducted several tests, involving pieces of metal, plastic, and sand, which demonstrated that a hard particulate could hold the exhaust port open, remain while the valve was pressured, and be blown free from higher pressure. Third, VanDenberg opines that a Haldex filter screen “would prevent contaminating the valve with obstructive particles from the air system,” which he also confirmed as part of his testing. *Id.* at 3.

B. Procedural History

Ms. Rapchak and Ms. Borzik commenced this action on September 6, 2013 by filing a five-count Complaint against (what they alleged to be) the manufacturer of the motorhome (Gulf Steam Coach, Inc. / TourMaster Recreational Vehicles, Inc.), the designer and assembler of the vehicle chassis (Daimler Trucks North America LLC / Freightliner Corporation / Freightliner, LLC / FCCC), the manufacturer of the suspension system (SAF-Holland USA, Inc.), and the designer, manufacturer, and seller of the height control valves (Haldex Brake Products Corporation / Haldex Limited / Haldex Midland Corporation).¹¹ Haldex Brake Products Corporation is the only remaining Defendant.

In their Complaint, Plaintiffs have alleged product liability claims under strict liability, negligence, and breach of warranty theories and a negligent infliction of emotional distress (“NIED”) claim. In doing so, Plaintiffs have sought damages under the Pennsylvania Survival

11. As indicated above, discovery revealed that FCCC designed, manufactured and sold the chassis; that SAF-Holland designed and manufactured the suspension system structure and component parts, but that FCCC designed the air flow system which connected the air intake, air bags, brakes, and height control valve; and that Haldex designed, manufactured and sold the subject height control valve(s) / dump valve(s).

Action, 42 P.S. § 8302 and the Wrongful Death Act, 42 P.S. § 8301, as well as an award of compensatory and punitive damages.

Following the close of fact discovery, Haldex filed a motion for partial summary judgment on the NIED claim of Ms. Borzik. The Court ultimately granted the motion and entered judgment against Ms. Borzik, dismissing her from this case.

Haldex has since filed a motion for summary judgment on all remaining claims brought against it by Ms. Rapchak, as well as a motion to exclude the expected opinion testimony of VanDenberg. Plaintiff opposes both motions. At the same time, Plaintiff represents that she abandons her negligence and breach of warranty claims, electing to proceed only with her strict liability claim under a design defect theory. Plaintiff also represents that she no longer seeks punitive damages.

II. Legal Standards

A. Federal Rule of Evidence 702

“Under the Federal Rules of Evidence, a trial judge acts as a ‘gatekeeper’ to ensure that ‘any and all expert testimony or evidence is not only relevant, but also reliable.’” *Pineda v. Ford Motor Co.*, 520 F.3d 237, 244 (3d Cir. 2008) (citing *Kannankeril v. Terminix Int’l, Inc.*, 128 F.3d 802, 806 (3d Cir. 1997)). Thus, whenever a party seeks to admit expert testimony at trial, the district court must make an initial preliminary determination “that the requirements of Fed. R. Evid. 702 have been met.” *Magistrini v. One Hour Martinizing Dry Cleaning*, 68 F. App’x 356, 356 (3d Cir. 2003) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592 (1993)).

Federal Rule of Evidence 702 provides that “[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the

trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.” Moreover, the United States Court of Appeals for the Third Circuit has interpreted Rule 702 as having “three major requirements: (1) the proffered witness must be an expert, i.e., must be qualified; (2) the expert must testify about matters requiring scientific, technical or specialized knowledge; and (3) the expert’s testimony must assist the trier of fact.” *Pineda*, 520 F.3d at 244 (citing *Kannankeril*, 128 F.3d at 806). Our Court of Appeals has also “interpreted the second requirement to mean that ‘an expert’s testimony is admissible so long as the process or technique the expert used in formulating the opinion is reliable.’” *Id.* (citing *Kannankeril*, 128 F.3d at 806 (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 742 (3d Cir. 1994))).

The qualification prong of Rule 702 “requires ‘that the witness possess specialized expertise.’” *Id.* (citing *Schneider ex rel. Estate of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003)). The Court of Appeals has “interpreted [this] requirement liberally.” *Id.* (citing *Schneider*, 320 F.3d at 404; *Paoli*, 35 F.3d at 741). It has explained that “a ‘broad range of knowledge, skills, and training’” can suffice to “‘qualify an expert.’” *Id.* (quoting *Paoli*, 35 F.3d at 741). “This liberal policy of admissibility extends to the substantive as well as the formal qualifications of experts.” *Pineda v. Ford Motor Co.*, 520 F.3d 237, 244 (3d Cir. 2008) (citing *Paoli*, 35 F.3d at 741). The Court of Appeals has repeatedly “stated that ‘it is an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate.’” *Kannankeril*, 128 F.3d at 809 (quoting *Holbrook v. Lykes Bros. S.S. Co.*, 80 F.3d 777, 782 (3d Cir. 1996)).

“The second requirement is that of reliability.” *Meadows v. Anchor Longwall & Rebuild, Inc.*, 306 F. App’x 781, 788 (3d Cir. 2009). In evaluating whether a particular methodology is reliable, the Court of Appeals has identified several factors district courts should consider:

(1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique’s operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Id. (citing *Paoli*, 35 F.3d at 742 n.8). However, these factors “are neither exhaustive nor applicable in every case.” *Id.* (quoting *Kannankeril*, 128 F.3d at 806-07). Whether they are relevant “depend[s] on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999). This inquiry remains inherently “flexible.” *Pineda*, 520 F.3d at 247 (quoting *Daubert*, 509 U.S. at 594). The question “is not whether a particular scientific opinion has the best foundation, or even whether the opinion is supported by the best methodology or unassailable research.” *In re TMI Litig.*, 193 F.3d 613, 665 (3d Cir. 1999), *amended*, 199 F.3d 158 (3d Cir. 2000). The goal is simply “to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire*, 526 U.S. at 152. Therefore, the focus must remain “on principles and methodology, not on the conclusions generated by the principles and methodology.” *In re TMI Litig.*, 193 F.3d at 665 (citing *Kannankeril*, 128 F.3d at 806).¹²

12. Even so, “conclusions and methodology are not entirely distinct from one another.” *In re TMI Litig.*, 193 F.3d 613, 665 (3d Cir. 1999), *amended*, 199 F.3d 158 (3d Cir. 2000) (quoting *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)). On the contrary, when assessing reliability, an expert’s conclusions must be examined to decide “whether they could reliably flow from the facts known to the expert and the methodology used.” *Id.* (quoting *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 153 (3d Cir. 1999)). If there is a “too great a gap between the data and the opinion proffered,” the opinion should be excluded. *Id.* (quoting *Joiner*, 522 U.S. at 519). The Court is thus

“The analysis of the conclusions themselves is for the trier of fact when the expert is subjected to cross-examination.” *Id.* (quoting *Kannankeril*, 128 F.3d at 806).

“The third element under Rule 702, namely, whether the expert testimony would assist the trier of fact, “goes primarily to relevance.” *Meadow*, 306 F. App’x at 790 (quoting *Lauria v. Amtrak*, 145 F.3d 593, 599 (3d Cir. 1998)). This element requires that “[t]he expert’s testimony must ‘fit’ under the facts of the case so that ‘it will aid the jury in resolving a factual dispute.’” *Id.* And “[t]he standard for the factor is not high; it is met when there is a clear ‘fit’ connecting the issue in the case with the expert’s opinion that will aid the jury in determining an issue in the case.” *Id.* (citing *Lauria*, 145 F.3d at 600 (quoting *Paoli*, 35 F.3d at 745)); *see also In re TMI Litig.*, 193 F.3d at 670 (“[A]dmissibility depends, in part, on a connection between the expert opinion offered and the particular disputed factual issues in the case.”) (citation omitted). Therefore, “expert testimony based on assumptions lacking factual foundation in the record is properly excluded” under the fit requirement in addition to the reliability requirement. *Meadows*, 306 F. App’x at 790 (citing *Stecyk v. Bell Helicopter Textron, Inc.*, 295 F.3d 408, 414 (3d Cir. 2002)).

B. Federal Rule of Civil Procedure 56

Summary judgment must be granted when “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). The movant must identify those portions of the record which demonstrate the absence of a genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). A material fact is one “that might affect the outcome of the suit under the governing

not required to “admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *Joiner*, 522 U.S. at 146.

law.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). “Factual disputes that are irrelevant or unnecessary will not be counted.” *Id.*

To withstand a motion for summary judgment, the nonmoving party must show a genuine dispute of material fact for trial by citing to particular parts of material in the record. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586-87 (1986). A dispute about a material fact is “genuine” only “if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson*, 477 U.S. at 248. “[T]he mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no genuine issue of material fact.” *Id.* at 247-48.

The parties must support their position by “citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials,” Fed. R. Civ. P. 56(c)(1)(A), or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact,” Fed. R. Civ. P. 56(c)(1)(B). In reviewing all of the record evidence submitted, the court must draw all reasonable inferences therefrom in the light most favorable to the nonmoving party. *Matsushita*, 475 U.S. at 587.

The court is not permitted to weigh evidence or to make credibility determinations at this stage. *Anderson*, 477 U.S. at 255. Those functions are for the jury, not the court. *Id.* The court is thus limited to deciding whether there are any disputed issues and, if so, whether they are both genuine and material. *Id.*

III. Discussion

A. Motion in Limine to Exclude the Expected Testimony of VanDenberg

Haldex challenges the reliability of VanDenberg's methodology. Distilled to its essence, Haldex argues that VanDenberg's report is "based on nothing more than his raw, untested speculation that some type of screen filter might have prevented the valve from sticking open, and this might have prevented the accident." Def.'s Br. at 17-18. For the reasons that follow, the Court disagrees.

Haldex first challenges VanDenberg's premise that some unknown contaminant prevented the exhaust port of the height control valve from closing when expected to do so. That position misses the mark, to say the least. Against the backdrop of his knowledge and experience, VanDenberg reached his opinion after he (1) reviewed the reports and testimony of Trooper Spangler and Mr. Alexander; (2) viewed the film from the August 14, 2012 tests during which the motorhome descended three inches over eleven minutes with the subject height control valve installed but performed as intended with a replacement product – thus eliminating the applied forces on the trailer hitch as the sole cause; (3) examined the height control valve (in assembled form) after its removal, identifying a visible contaminant(s) at the ports; (4) witnessed hard granular particulates expelled from the exhaust port when pressurized at the Kansas City facility – after which the Schrader valve worked properly; (5) observed the various compounds within the height control valve once it was disassembled; and (6) studied the test results from the R.J. Lee Group. Haldex casts aside those inconvenient facts and calls VanDenberg's observations "speculation." Hardly so. Haldex further glosses over the fact that VanDenberg also accounted for and explained away – in accordance with scientific principles – alternative causes of the incident such as "the balance lever and a pressure differential acting upon the

Schrader valves” or “a malfunction of the Schrader valve by virtue of its components not moving as intended [] without any external elements.” Jan. 7, 2016 VanDenberg Report at 2.

Similarly, Haldex next takes VanDenberg to task because “[h]e does not know what material supposedly lodged in the exhaust port Schrader valve, how big it was or where it came from,” and therefore, he cannot perform any tests to confirm or disprove his hypotheses. Def.’s Br. at 18-19. This position ignores what occurred at the Haldex facility where, by all accounts, Haldex controlled the machinery and testing sequence that initiated a 120 psi air blast without warning or safeguards in place. Be that as it may, VanDenberg did, in fact, conduct tests to determine:

whether a hard particle small enough to travel through the Schrader valve and large enough to hold the Schrader valve open, which could not pass through the screens now provided by Haldex in its fittings, (a) could hold open the exhaust port Schrader valve sealing parts, (b) could exist and remain to exhaust air in amounts similar to that which was found to exist immediately after the incident and on inspections thereafter, during normal pressure conditions, and (c) could be blown free from the sealing parts when the valve was pressurized to a 120 psi level with and without activation of the valve control lever.

Jan. 7, 2016 VanDenberg Report at 3. It is true that VanDenberg states that “[t]he tests were not done to duplicate the conditions at the time of the incident, but rather to answer those questions.” *Id.* at 4. But that is appropriate fodder for cross-examination, not the basis upon which to completely exclude his testimony. After all, “[e]xperimental evidence may be admitted even if conditions do not perfectly correspond to the conditions at issue in litigation; dissimilarities may affect the weight of the evidence, but not its admissibility.” *Meadows*, 306 F. App’x at 790 n.3 (citations omitted).

Haldex then focuses its attention on several of the factors that courts typically evaluate in determining reliability: *i.e.*, whether the method has been subject to peer review, whether the method is generally accepted, the relationship of the technique to methods which have been

established to be reliable, and the non-judicial uses to which the method has been put. In doing so, Haldex deems the decision, by several companies over many years, to not include a filter screen as tantamount to a rejection of VanDenberg's hypothesis. It also claims that "VanDenberg is not aware of any height control valve manufactures that incorporate a screen filter into the design of their valves." Def.'s Br. at 21. Yet it (repeatedly) ignores the fact that the precise type and nature of filter screens already exist. As Plaintiff highlights: "Haldex itself has sold filters with devices that are within the air flow of the suspension system[,] such as pressure protection valves with an integral screen filter."¹³ Pl.'s Br. in Opp. at 17. And VanDenberg in fact "tested and found that the hard particulates large enough to obstruct the seal for closure of the Schrader valve would have been prevented from entering the valve by the filter screens now provided by Haldex." *Id.* at 18.

The Court thus concludes that the arguments of Haldex are without merit. Accordingly, it will deny Haldex's motion to exclude the anticipated testimony of VanDenberg.

B. Motion for Summary Judgment

Plaintiff's remaining strict liability claim alleges that the "specific design defect in the [Haldex height control valve] was the absence of a filter necessary to eliminate contamination which prevented the exhaust port from closing" when expected to do so.¹⁴ Pl.'s Br. in Opp. at

11. Haldex moves for summary judgment on this remaining theory.

13. Plaintiff also represents that "[t]here are no peer review criteria that have been developed" or "written industry standard to test whether contamination affects the function of a component." Instead, "[t]he condition of the internal components is not known until the valve is opened."

14. It is somewhat unclear whether Plaintiff is also attempting to rely on the malfunction theory. *See* Pl.'s Br. in Opp. at 9 ("Though [P]laintiff's strict liability claim may succeed on a proof of malfunction, which can be an alternative way of proving defect when a specific defect is not known, the [P]laintiff has alleged and proffered expert opinion that the defect in the subject HCV was a specific element that was not incorporated in its design and caused the valve to malfunction."); *see generally* *Wilson v. Saint-Gobain Universal Abrasives, Inc.*, No. 213-CV-1326, 2015 WL 1499477, at *12 (W.D. Pa. Apr. 1, 2015) (discussing the malfunction theory). Either way, the Court "notes that 'the plaintiff need not resort to the malfunction theory. Rather, [] she may prove the defect by

As an initial matter, the Court summarily rejects several of Haldex's arguments. First, Haldex contends that Plaintiff cannot sustain her burden of showing that the subject height control valve was in the same condition at the time of the accident as it was when it left Haldex. In doing so, Haldex ignores the fact that Plaintiff's design defect theory hinges on the absence of a protective filter, and it instead simply seizes on VanDenberg's use of the word "malfunction." With this argument, Haldex also attempts to resolve several factual issues in its favor, as well as those matters it raised in its *Daubert* motion. Second, Haldex contends that the mere passage of time between when the product left its control and when the injury occurred relieves it from liability. *See* Def.'s Br. at 12 ("Here, the subject valve was a maintenance item, subject to 4 ½ years and 37,000 miles of wear and tear. Haldex had no duty to manufacture a valve that did not need periodic maintenance and would never wear out."). But this position only focuses on the manufacture of the product, not the alleged design defect. Third, Haldex argues that, as the designer, manufacturer, and seller of a component part, it cannot be held strictly liable under a design defect theory because any danger was created by the way FCCC incorporated its product into the air suspension system. The principal case Haldex relies upon, *Jacobini v. V. & O. Press Co.*, 588 A.2d 476, 478 (Pa. 1991), is distinguishable. There, the Supreme Court of Pennsylvania only recognized "limits on a manufacturer's *duty to warn*," which "are placed at issue where . . . the manufacturer supplies a mere component of a product that is assembled by another party and dangers are associated with the use of the finished product." *Id.* at 478 (emphasis added).

presenting expert testimony based on an examination of similar articles to the one that injured the plaintiff.'" *Ellis v. Beemiller, Inc.*, 910 F. Supp. 2d 768, 779 n.11 (W.D. Pa. 2012) (quoting *Dansak v. Cameron Coca-Cola Bottling Co.*, 703 A.2d 489, 496 n.8 (Pa. Super. Ct. 1997)); *see also* *McDaniel v. Kidde Residential & Fire & Commercial*, No. 2:12-CV-1439, 2015 WL 1326332 (W.D. Pa. Mar. 24, 2015).

Haldex’s final position with regard to the remaining strict liability claim is that Plaintiff cannot prove that the height control valve was in a “defective condition.” In essence the parties dispute whether Plaintiff can meet the requirements of the “consumer expectation test” and/or the “risk utility analysis” articulated by the Pennsylvania Supreme Court in *Tincher v. Omega Flex, Inc.*, 104 A.3d 328 (Pa. 2014).¹⁵ This is a closer call, to be sure.

In *Tincher*, the Supreme Court held that “a plaintiff pursuing a cause upon a theory of strict liability in tort must prove that the product is in a ‘defective condition.’” 104 A.3d at 335. A plaintiff may do so “by showing either that (1) the danger is unknowable and unacceptable to the average or ordinary consumer [the ‘consumer expectations standard’], or that (2) a reasonable person would conclude that the probability and seriousness of harm caused by the product outweigh the burden or costs of taking precautions [the ‘risk-utility standard’].”¹⁶ *Id.* “[T]his is a combined test that requires the plaintiff to meet only one of the two standards, which may be pled in the alternative.” *Punch v. Dollar Tree Stores, Inc.*, No. CV 12-154, 2015 WL 7769223, at *3 (W.D. Pa. Nov. 5, 2015) (citing *Tincher*, 104 A.3d at 391).

The *Tincher* Court also “underlined that it is ordinarily for the jury to determine whether a product is in a defective condition.” *Lewis v. Lycoming*, No. CIV.A. 11-6475, 2015 WL 3444220, at *4 (E.D. Pa. May 29, 2015) (citing *Tincher*, 104 A.3d at 335). In fact, the Court

15. “The principal impact of *Tincher* is twofold.” *Punch v. Dollar Tree Stores, Inc.*, No. CV 12-154, 2015 WL 7769223, at *3 (W.D. Pa. Nov. 5, 2015). First, the Supreme Court “overruled the seminal case of *Azzarello v. Black Brothers Co.*, 391 A.2d 1020 (Pa. 1978), which created a distinct dichotomy between strict liability and negligence claims in Pennsylvania that ultimately led to trial courts ‘directing that negligence concepts have no place in Pennsylvania strict liability doctrine.’” *Id.* (quoting *Tincher*, 104 A.3d at 376). “Second, the *Tincher* Court declined to adopt the Restatement (Third) of Torts to replace the *Azzarello* standards abrogated by its decision, because it ‘presumes too much certainty about the range of circumstances, factual or otherwise, to which the “general rule” articulated should apply.’” *Id.* (quoting *Tincher*, 104 A.3d at 398).

16. “In describing the risk-utility test, the Court noted that other jurisdictions have relied upon a series of factors articulated by Dean John W. Wade.” *Lewis v. Lycoming*, No. CIV.A. 11-6475, 2015 WL 3444220, at *3 (E.D. Pa. May 29, 2015) (citing *Tincher*, 104 A.3d at 389). At the same time, “[t]he Supreme Court of Pennsylvania stopped short of endorsing the Wade factors expressly.” *Id.*

stated that “the question is removed from the jury’s consideration only where it is clear that reasonable minds could not differ on the issue.” *Tincher*, 104 A.3d at 335.

Here, “[t]here is ample room in the present record for the jury to decide what balance of risk and utility or what consumer expectations are appropriate” with regard to the height control valve. *Lewis*, 2015 WL 3444220, at *4. A jury could reasonably disagree on whether the (alleged) danger is unknowable and unacceptable to the average or ordinary consumer. Reasonable minds may also disagree on whether an “ordinary consumer would reasonably anticipate and appreciate the dangerous condition of the product and the attendant risk of injury of which the plaintiff complains.” *Tincher*, 104 A.3d at 387. And they may disagree on, for instance, “[t]he manufacturer’s ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility” or “[t]he user’s ability to avoid danger by the exercise of care in the use of the product” – just two of the so-called “Wade factors.” *Id.* at 389-90. It is therefore for the jury to determine at trial whether the height control valve was in a defective condition. *See Lewis*, 2015 WL 3444220, at *4. Accordingly, the Court will deny Haldex’s motion for summary judgment.

IV. Conclusion

For the reasons hereinabove stated, the Court will deny as moot FCCC’s motion for summary judgment, deny Haldex’s motion for summary judgment, and deny Haldex’s motion in limine. An appropriate Order follows.

McVerry, S.J.

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

BONNIE RAPCHAK, *Executrix of the Estate
of John E. Borzik, Deceased,*

Plaintiff,

vs.

**HALDEX BRAKE PRODUCTS
CORPORATION,**

Defendant.

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ORDER OF COURT

AND NOW, this 15th day of March, 2016, in accordance with the foregoing Memorandum Opinion, it is hereby **ORDERED, ADJUDGED and DECREED** as follows:

- (1) the MOTION FOR SUMMARY JUDGMENT (ECF No. 132) filed by Freightliner Custom Chassis Corporation is **DENIED AS MOOT**.
- (2) the MOTION FOR SUMMARY JUDGMENT (ECF No. 137) filed by Defendant Haldex Brake Products Corporation is **DENIED**; and
- (3) the MOTION IN LIMINE TO EXCLUDE THE EXPECTED OPINION TESTIMONY OF PLAINTIFF'S ENGINEERING EXPERT ERVIN VANDENBERG (ECF No. 169) filed by Defendant Haldex Brake Products Corporation is **DENIED**.

IT IS FURTHER ORDERED that Plaintiff shall file a Pre-Trial Statement on or before March 29, 2016 and Defendant shall file a Pre-Trial Statement on or before April 5, 2016.

IT IS FURTHER ORDERED that a Pretrial Conference in the above-captioned matter is hereby scheduled on Tuesday, April 19, 2016 at 1:30 PM. Trial counsel shall attend in person.

BY THE COURT:
s/Terrence F. McVerry
Senior United States District Judge

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